

8.14 PUBLIC SERVICES AND UTILITIES

8.14.1 Affected Environment

Police, Fire, and Emergency Medical Services

Army staff provide all police services on PTA. Units that come to PTA for training may bring military police of their own, depending on the size of the unit and other circumstances. The PTA police facility is located in the cantonment area and is open 24 hours per day, seven days per week. Saddle Road, a public highway, is patrolled by Hawai'i County police, but PTA military police are available for support when necessary. Lands leased by the Army are not patrolled on a regular basis, but military police will respond to calls in coordination with county police. PTA military police coordinate extensively with county police on a regular basis (Langford 2002).

Fire and emergency medical services are provided by Army staff based at PTA as well. There is one fire station, located at BAAF, with a staff of six (including two emergency medical technicians [EMTs]) sharing duty round the clock. Available equipment includes two brush trucks (wildland rigs), a tanker, a crash rig, and an ambulance. Serious medical emergencies involve medical helicopter transport to Hilo, which is about 10 minutes away by air. PTA emergency staff respond to accidents on the roughly 25 miles (40.2 kilometers) of Saddle Road that pass through PTA, and at the border of the installation the injured are transferred to the care of the City and County of Hawai'i (Hoke 2002).

Water Distribution

The primary source of potable water had been springs fed by snow melt on Mauna Kea, but the water supply is now hauled by tanker trucks from the town of Waimea, where it is purchased (C. H. Guernsey & Company 2001). Excess demand can be supplied by the City of Hilo (C. H. Guernsey & Company 2002a). Each truck has a capacity of 5,000 gallons (18,927 liters), and up to 14 truckloads per day were required when the camp was at full capacity. Two pump stations transport the hauled water to two 670,000-gallon (2,553,226-liter) storage reservoirs, where it is treated with powdered chlorine and sent to three 10,000-gallon (37,854-liter) distribution reservoirs. Water from these reservoirs supplies PTA, BAAF, and fire reserves (C. H. Guernsey & Company 2001). Water consumption on PTA ranges from 10,000 gallons (37,854 liters) per day to 250,000 gallons (946,353 liters) per day, depending on camp occupancy; average consumption is 100,000 gallons (378,541 liters) per day (C. H. Guernsey & Company 2002a).

Hökūpani Spring, Waihū Spring, and Liloe Spring previously supplied water to PTA. Spring water is captured by two 2-inch (5-centimeter) pipes running from the springs, through water catchments, and down to the base camp. The annual production of water supplied by the springs ranges from 20,000 gallons (75,708 liters) to 40,000 gallons (151,417 liters) per day. However, historically, the spring produces a range of 0 to 80,000 gallons (302,833 liters) per day. This water was stored in a 670,000-gallon (2,553,226-liter) tank and treated in a slow sand filter treatment plant installed in 1996. The treated water was then conveyed to the two storage reservoirs for chlorination. The slow sand filter ceased to function, and use of spring water was discontinued. The state ranger facility has the rights to the first 8,000 gallons

(30283 liters) of water from the springs. The Army has the rights to the next 6,000 gallons (22,712 liters), and the remainder of the water is divided equally between the two agencies (C. H. Guernsey & Company 2001).

The pipe system at PTA was replaced in 1999 with PVC piping; the pipes at BAAF are scheduled to be replaced. A 60,000-gallon (227,125-liter) nonpotable water reservoir used for fire suppression at BAAF is filled by PTA personnel as needed (C. H. Guernsey & Company 2001).

Wastewater and Stormwater

Wastewater flows at PTA derive from domestic wastewater generated by mess halls, latrines, and other administrative operations. Most of the flows from each of these facilities are disposed of in adjacent cesspools. Some facilities are grouped to one cesspool, and wastewater from grouped facilities is collected and transported through four-inch (10-centimeter) sewer lines to a cesspool for disposal. Three latrine/shower facilities (T-87, T-290, and T-121) recycle water used in the showers and sinks for use in the latrines. The wastewater from the latrines is then discharged to a septic tank and is finally disposed of in a seepage pit or leach field. Due to a revision in USEPA regulations, cesspools serving more than 20 people per day must be closed by April 5, 2005 (C. H. Guernsey & Company 2001).

Solid Waste Management

Based on the waste and recycling streams generated during the third quarter of 2002, an estimated 296 tons of industrial solid waste is generated by PTA annually, which represents about 8.6 percent of the total estimated annual industrial waste stream generated by Army installations in the state of Hawai'i (USARHAW 2002a). PTA has no recycling services (Ching 2002a).

Telephone

Telecommunications from the area between Mauna Kea and Mauna Loa are transmitted to Hilo through the Humu'ula microwave station. Overhead trunk lines extend from this station to PTA, and distribution lines are located in the base camp, cantonment area, and BAAF. The trunk and distribution lines are owned by GTE Hawaiian Telephone, Inc. Telecommunications service to the Multi-Purpose Range Complex is supplied through a GTE cabinet at Saddle Road and is distributed from the terminal to the complex by overhead lines owned and maintained by the Army. As of 1996 the Humu'ula microwave station was close to capacity. However, construction of a fiber optic cable system, extending from GTE's Hilo office to the Humu'ula microwave station via HELCO's overhead power line poles, was scheduled for completion in 1996. The fiber optic network would allow for additional telecommunications capacity (Sato 1996). As of the time of publication of the Electric Utility Risk Assessment in 2001, PTA lacked broadband communications capabilities, and the existing communications infrastructure required complete replacement (C. H. Guernsey & Company 2001).

Electricity and Natural Gas

HELCO supplies electric power to PTA through a single 12.47-kV delivery point from a HELCO-owned substation located outside the northeast fence of the cantonment area. The

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No Action should have no impacts on public utilities. No changes to the provision of police, fire, and emergency services would occur. The demand for water, wastewater collection and treatment, solid waste collection and disposal, telephone systems, and electricity would not

change because no new facilities would be constructed, no additional training would occur, and no new personnel would be added.

Proposed Action (Preferred Alternative)

Less Than Significant Impacts

Police, fire, and emergency medical services. Minor long-term adverse effects on law enforcement, fire protection, and emergency medical services are expected. The increase in training activities could increase the demand for these services, but they should be adequate to accommodate such an increase. There would be no change in jurisdiction for any law enforcement agencies or fire departments.

Water distribution. Minor long-term adverse effects would be expected from the Proposed Action due to increased water demand. Increased training maneuvers could increase the demand for potable water at PTA, but this should not have a significant adverse effect on the potable water supply system. The tactical vehicle wash would have wash stations using reclaimed water to minimize overall water usage, and the station would recycle water. A water line would be required to connect the tactical vehicle wash to an existing main on Kawaihae Road. The water demands of the tactical vehicle wash would be approximately 13.5 million gallons per year, or a daily average of 36,900 gallons per day. This is about 0.04 percent of the current average daily demand and would be accommodated by the existing potable water supply system.

Water supplied to the AALFTR and the BAX would be brought in by truck, and no wells or distribution lines would be required. Water would be supplied to the new range maintenance building through a connection to existing distribution lines, located approximately 150 feet (45.7 meters) north of the building site. The upgrade of BAAF is projected to require 2.6 million gallons per year, a daily average of 7,100 gallons a day. This is less than 0.01 percent of the current average daily demand and would be accommodated by the existing potable water supply system. The proposed military vehicle trail from Kawaihae Harbor to PTA would not affect the potable water system.

Wastewater and stormwater. Minor long-term adverse effects are expected from the Proposed Action. The tactical vehicle wash would have wash stations using reclaimed water to minimize overall water usage, and the station would recycle water to minimize wastewater disposal. Wastewater would flow through a sediment basin, an equalization basin, and a secondary treatment system, designed to remove oil, grease, and grit and to control organics. Any wastewater not flowing through the main system would be sent to an oil-water separator. Concrete curbing and a trench drain would control the flow of wastewater. The facility would be covered to limit rain infiltration and disposal of excess wastewater. A sewer line serving restrooms in the wash rack area would tie into the sewer line conducting wastewater from the oil-water separator. The sanitary sewer would connect to the existing municipal system by a sewage pump station.

All sewage at the AALFTR and BAX would be collected in the aerated vault latrine that would be constructed on the site of the AALFTR. Sewage would be removed by pumper

truck, and no new sewage lines or septic field would be required. Collection and treatment of sewage at the new range maintenance building would be provided by a septic system, including a septic tank and leach fields, that would be constructed to the west of the site. The sanitary sewer system for the BAAF runway upgrade and the ammunition storage area would connect to the installation sewer system by gravity flow; the system is projected to be adequate to handle this increase. Construction of PTA Trail would not generate additional wastewater, but paving the surface would increase the amount of impervious surface area between PTA and Kawaihae Harbor (which would require approximately 126.02 acres [51.0 hectares] of clearing and grubbing). Stormwater runoff from the road would be managed by drainage improvements, culverts at stream crossings, grass and concrete swales, and drainage structures and lines.

Several elements of the Proposed Action would create impervious surfaces covered by buildings and paving, including the proposed PTA Trail, the tactical vehicle wash, the AALFTR (which would require approximately 74.13 acres [30.0 hectares] of clearing and grubbing), the range maintenance building, the BAX, the BAAF runway upgrade (which would require approximately 2,016 acres [815.8 hectares] of clearing and grubbing), and the ammunition storage area. Drainage from these surfaces would be controlled using grading, curbs, drains and gutters, and other best management practices, such as retention ponds, to minimize stormwater pollution and runoff. The wastewater and stormwater collection and treatment systems at PTA are anticipated to have adequate capacity to handle increases in volume that could result from the Proposed Action.

Solid waste management. Minor long-term adverse effects would be expected from the Proposed Action. The building space and facilities to be constructed would generate construction and demolition waste that could reduce the useful life of the landfill, but this reduction should be negligible. In particular the AALFTR would require demolishing at least one structure and possibly foundations, concrete slabs, utility poles, utilities, and fencing; the BAX would require demolishing the assets at Range 12. This waste stream would be minimized by recycling. A minimal increase in solid waste is expected as a result of increases in training. These changes should be within the capacity of the existing waste collection and disposal system.

Electricity. Minor long-term adverse effects are expected from the Proposed Action. The HELCO substation and distribution system is estimated to be adequate to supply the anticipated 546,842 kWh/year energy demands of the tactical vehicle wash. The average daily energy demand of the tactical vehicle wash would be approximately 1,498.2 kW, which is an increase of about 33 percent over the existing average daily demand. The most energy efficient equipment compatible with the Army's needs would be used in order to minimize energy consumption. A new 12.47-kV, three-phase primary line would be constructed to connect to the line at the weather tower and bring electrical power to several locations on the AALFTR and BAX. Secondary power lines from these primary overhead lines would be extended underground to pad-mounted transformers on the site, from which range targets, lights, heat, and video would be powered. Electrical power at the range maintenance building would be provided from a 12.47-kV electrical line approximately 100 feet (30.5 meters) north of this site that should accommodate the additional demands of the range maintenance

building. The HELCO substation and distribution system is estimated to be adequate to supply the anticipated 15,768 kWh/year energy demands of the BAAF runway upgrade. The average daily energy demand of the BAAF runway upgrade would be approximately 43.2 kW, which represents an increase of less than 1 percent in average daily demand. The HELCO substation and distribution system is estimated to be adequate to supply the anticipated 32,564 kWh/year energy demands of the ammunition storage area. The average daily energy demand of the tactical vehicle wash would be approximately 89.2 kW, which represents an increase of about 2 percent in average daily demand.

Telephone. The Proposed Action would require additional telephone and telecommunications services but also would have beneficial effects on the telephone system at PTA. These changes would result in a less than significant impact. Many of the projects proposed under the Proposed Action involve providing new telephone and data lines to support more technical training maneuvers and the use of additional buildings. Construction for the AALFTR, the range maintenance building, the BAX, and the ammunition storage area includes telecommunications lines and fiber optic cabling among the support facilities that would be provided. These cables would extend service from existing locations. A mini-remote switching center would be established in one of the BAX to support telecommunications and information technology, and eleven FTI antennas would be located throughout PTA.

Reduced Land Acquisition Alternative

Less than Significant Impacts

The public services and utilities impacts for the RLA Alternative would be similar to those described in detail under the Proposed Action. The additional range to be constructed (QTR2), as well as any increases in training at new and existing facilities, would increase demand on utilities and service under the RLA Alternative. Additional utilities would be provided for the projects that would require increased capacity; otherwise, the existing systems would be expected to have adequate capacity to provide for these changes. Slight differences in the impacts on the utilities identified below would occur under the RLA Alternative due to the construction of QTR2 at PTA.

The demand on law enforcement, fire protection, and emergency medical services would be slightly greater under the RLA Alternative than under the Proposed Action due to the construction of QTR2 at PTA. However, this impact would be expected to be negligible, and would result in a less than significant impact. Water used at QTR2 would be trucked in under the RLA Alternative. The sanitary wastewater volume to be collected in aerated vault latrines and removed by pumper truck would be greater under the RLA Alternative than under the Proposed Action. Additional new primary and secondary electrical lines would be required under the RLA Alternative than under the Proposed Action to QTR2. Additional telecommunications cabling would be provided under the RLA Alternative to support QTR2. This additional cabling would have beneficial effects on the telecommunications system at PTA and would represent a less than significant impact.

No Action Alternative***No Impacts***

Under the status quo of No Action, no changes would occur to the jurisdiction for any law enforcement agencies or fire departments, nor would there be increased demands on existing services. The demand for water, wastewater collection and treatment, solid waste collection and disposal, telephone systems, and electricity would not change because no new facilities would be constructed, no additional training would occur, and no new personnel would be added.